Actiontec®

USB

Wireless Bluetooth Adapter

Software version: 1.1

User Manual

Solutions for the Digital Life™

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Introduction 1

Thank you for purchasing the *Action*tec USB Wireless Bluetooth Adapter. Now you can truly enjoy the freedom of wireless connectivity with *Action*tec's Bluetooth Adapter. Simply install the software and then plug this tiny adapter into any USB port on your computer, and you can exchange information between it and any other Bluetooth enabled device. Imagine sharing your Internet connection by simply requesting it from any computer, or PDA. Connect on the go by using your cell phone as a high speed modem or simply print to any bluetooth enabled printer, The *Action*tec USB Wireless Bluetooth Adapter lets you enjoy the freedom of true mobility whether you're at the office or on the move.

What is Bluetooth?

Bluetooth is a worldwide standard for digital wireless communication and data exchange between multiple devices. Bluetooth compliant devices exchange data by establishing a relationship with each other, the first device acting as a client, requests a connection, while the second device acting as a server accepts or rejects that request. Some Bluetooth devices can behave as client and server; however other devices can only behave as a client.

Package Contents

- *Action*tec USB Wireless Bluetooth Adapter
- Installation CD
- Quick start guide
- USB Extension Cable (Optional)

Minimum System Requirements

- Microsoft Windows 98SE, ME, 2000, XP
- Available USB Port
- Pentium 90 or faster
- 16MB or RAM
- TCP/IP installed

Technical Support

*Action*tec Electronics prides itself on making high-quality, durable, high-performance products. If you need assistance, the *Action*tec Technical Support Department is available every day 24 hours a day to provide professional support.

_Action_tec Electronics, Inc.

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Technical Support

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Installing the USB Wireless Bluetooth Adapter 2

The instructions that follow provide a visual guide to setting up the *Action*tec USB Wireless Bluetooth Adapter. It is recommended the user follow these instructions prior to attempting any other procedures. This manual will guide you through the hardware and software installation and configuration.

2.1 Install the Software

☞ **STOP!!!:** You must install the Bluetooth Software PRIOR to connecting your Bluetooth Adapter to the computer. If you have already connected the Bluetooth Adapter, please remove it now and restart your computer.

1. Make sure your computer is turned on, then put the *Action*tec Installation CD-ROM in your CD-ROM drive.

2. The Installation software should start automatically. This may take a few moments.

   When you see this window. Click **Next** to continue

Actiontec Bluetooth Software - InstallShield Wizard
Welcome to the InstallShield Wizard for Actiontec Bluetooth Software
The InstallShield(R) Wizard will install Actiontec Bluetooth Software on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

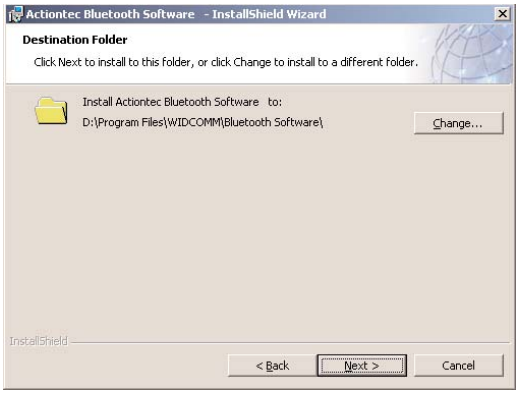
☞ **Note:** If you do not see the window above, click Start on the taskbar and then select Run. Type d:/setup (or e:/setup, depending on the drive letter of your CD-ROM drive), then click OK.

3. When you see the License Agreement screen appear, read the License Agreement carefully. Click the circle next to **"I accept the terms in the license agreement"** and then click **Next** to continue.

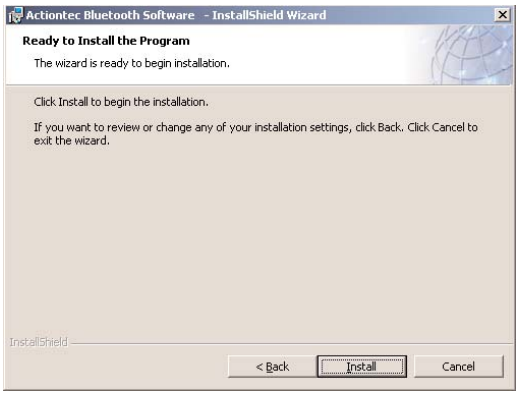
Actiontec Bluetooth Software - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
WIDCOMM, INC. ("WIDCOMM") IS WILLING TO
LICENSE THE WIDCOMM SOFTWARE ACCOMPANYING
THIS LICENSE AGREEMENT (THE "SOFTWARE") TO
YOU ONLY ON THE CONDITION THAT YOU ACCEPT ALL
OF THE TERMS IN THIS AGREEMENT. PLEASE READ
THE TERMS CAREFULLY. BY CLICKING ON THE "I
ACCEPT THE TERMS OF THIS LICENSE AGREEMENT"
BUTTON YOU ACKNOWLEDGE THAT YOU HAVE READ
THIS AGREEMENT, UNDERSTAND IT AND AGREE TO BE
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

☞ **Note:** If you do not agree with the terms of the license agreement, click the circle next to "I do not accept the terms in the license agreement" and click Next. Now you have terminated the installation of this Bluetooth Adapter.

4. Click **Next** to continue.

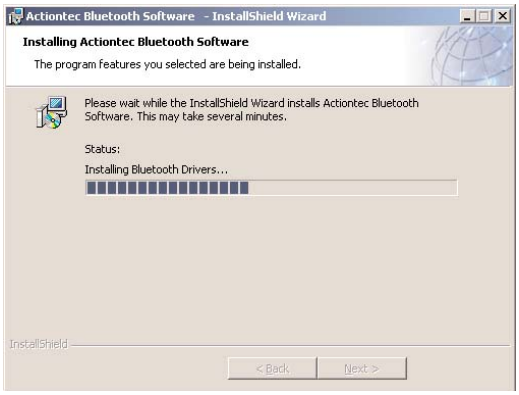

Actiontec Bluetooth Software - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install Actiontec Bluetooth Software to:
D:\Program Files\WIDCOMM\Bluetooth Software\
Change...
InstallShield
< Back
Next >
Cancel

5. Click **Install** to continue.

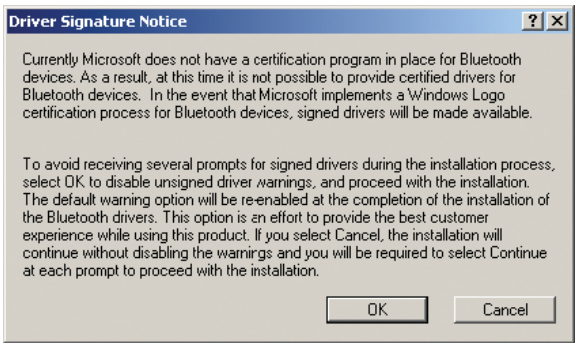

Actiontec Bluetooth Software - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

6. You will see this window. Please be patient as it will take several minutes to install your Bluetooth software.

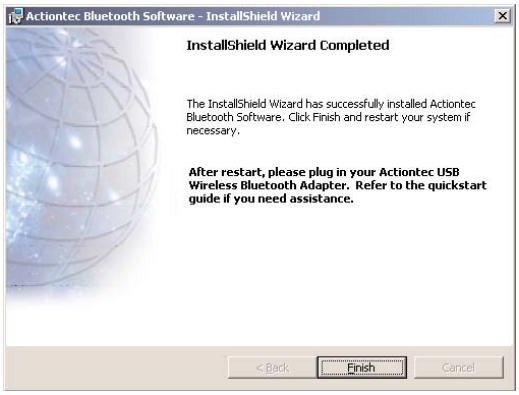
You may need to have your Windows CD handy.


Actiontec Bluetooth Software - InstallShield Wizard
Installing Actiontec Bluetooth Software
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs Actiontec Bluetooth Software. This may take several minutes.
Status:
Installing Bluetooth Drivers...
InstallShield
< Back
Next >

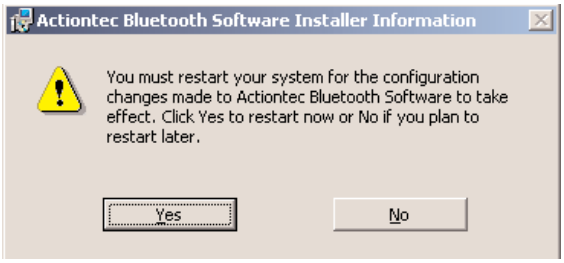
7. You may see this screen. If you do, click **OK**.


Driver Signature Notice
Currently Microsoft does not have a certification program in place for Bluetooth devices. As a result, at this time it is not possible to provide certified drivers for Bluetooth devices. In the event that Microsoft implements a Windows Logo certification process for Bluetooth devices, signed drivers will be made available.
To avoid receiving several prompts for signed drivers during the installation process, select OK to disable unsigned driver warnings, and proceed with the installation. The default warning option will be re-enabled at the completion of the installation of the Bluetooth drivers. This option is an effort to provide the best customer experience while using this product. If you select Cancel, the installation will continue without disabling the warnings and you will be required to select Continue at each prompt to proceed with the installation.
OK
Cancel

8. Click **Finish** to complete the software installation. Please remove any CD from the CD-ROM drive before restarting your computer.


Actiontec Bluetooth Software - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Actiontec Bluetooth Software. Click Finish and restart your system if necessary.
After restart, please plug in your Actiontec USB Wireless Bluetooth Adapter. Refer to the quickstart guide if you need assistance.
< Back
Finish
Cancel

9. Click **Yes** to complete the software installation and restart your computer now.


Actiontec Bluetooth Software Installer Information
You must restart your system for the configuration changes made to Actiontec Bluetooth Software to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

☞ **Note:** If you are running Windows XP, you may not need to restart your computer.

2.2 Connect the Adapter

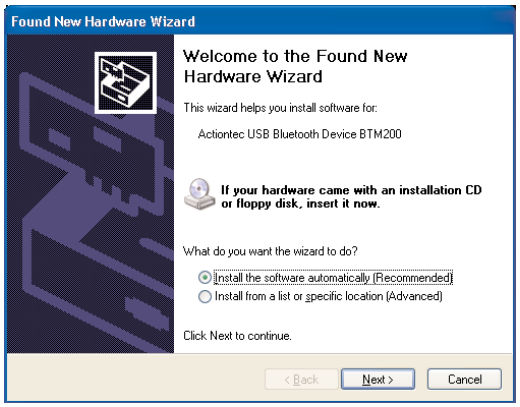
1. Get the Bluetooth Adapter from the *Action*tec Quick Start Kit

2. Take the **cap off** of the Bluetooth Adapter.

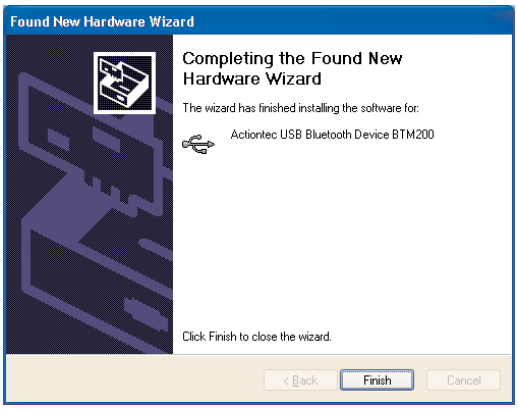
3. Follow the instructions for the type of computer that you are using.

Windows XP Users! You may see a Found New Hardware Wizard screen, once you connect the Bluetooth Adapter to your computer. Please see below for detailed instructions.

a. The "Found New Hardware Wizard" will run and the following screen will appear, make sure "Install the software automatically (Recommended)" is selected. When ready click **Next** to continue.


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Actiontec USB Bluetooth Device BTM200
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

b. The following screen appears, Click on **Finish** to complete the installation process.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Actiontec USB Bluetooth Device BTM200
Click Finish to close the wizard.
< Back
Finish
Cancel

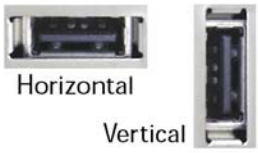
Laptop Users: Insert the Bluetooth Adapter into an open USB port.

Desktop Users:

a.) Get the **USB Extension Cable** from the Quick Start Kit.

b.) Insert one end into an open **USB port** on the computer.

☞ **Note:** The USB Port is shaped like a thin rectangle about ¼ inch by ½ inch and may be horizontal or vertical.



c.) Plug the other end into the Bluetooth Adapter

d.) Set the Bluetooth Adapter on top of your monitor where it can receive a clear signal.

4. Make sure the light on the Bluetooth Adapter is **SOLID GREEN**.

Congratulations, you have successfully installed the *Action*tec USB Wireless Bluetooth Adapter. To begin using your Bluetooth Adapter, doubleclick on the "My Bluetooth Places" icon that appears on your desktop.

Working with Bluetooth 3

The *Action*tec USB Wireless Bluetooth Adapter can communicate with any Bluetooth-enabled device wirelessly, in order to accomplish this a relationship with the device must be established. This chapter will guide you on the different functions and methods for operating your *Action*tec USB Wireless Bluetooth Adapter.

3.1 Start or Stop using the Adapter

- **Starting the *Action*tec USB Wireless Bluetooth Adapter**
  In the Windows system tray, right-click the Bluetooth icon an select **Start Bluetooth Device**. The Bluetooth icon is blue in color with a white insert when Bluetooth is running.

- **Stopping the *Action*tec USB Wireless Bluetooth Adapter**
  In the Windows system tray, right-click the Bluetooth icon and select **Stop Bluetooth Device**. The Bluetooth icon is blue in color with a red insert when Bluetooth is stopped.

3.2 Creating a Bluetooth Connection

To establish a relationship with other Bluetooth-enabled devices. To create a connection between your Bluetooth-enabled computer and any Bluetooth-enabled device, follow any of the methods described below.

- **Option 1: Creating a Connection from the System Tray**
  In the Windows system tray which is located in the bottom right hand corner, right-click the Bluetooth icon, select Quick Connect and then the Bluetooth service that you wish to use.

  If this computer has created a connection to the desired type of service in the past, the options on the shortcut menu are:

  - The name(s) of any device(s) with which prior connections to this type of service have been established. Select a name from the list to re-establish connection.

  - **Other Devices…**Select this option to search for additional devices that potentially provide the desired service, select a device from the list, and then click **Connect.**

If this computer has never created a connection to this type of service, the only option on the shortcut menu is **"Find Devices…."** Select this option to search for devices that potentially provide the desired service, select a device from the list, and then click **Connect**.

- **Option 2: Creating a Connection Using the Bluetooth Setup Wizard**
  Launch the Bluetooth Setup Wizard by following this simple step.
  - **Right-click** the Bluetooth icon on your desktop and select **Bluetooth Setup Wizard**. Once launched, Follow the Bluetooth Wizard instructions.

3.3 Connect to Another Device

3.3.1 Pairing With a Bluetooth Enabled PC

In this section we will show you how to connect to another computer. In the world of Bluetooth, we call this "pairing". If you would like to connect or "pair" your computer to another device like a Bluetooth cell phone or keyboard, please go to section 3.4.2 of this User's Manual.

1. Make sure that you have the Bluetooth Adapter installed and configured on each computer or device.

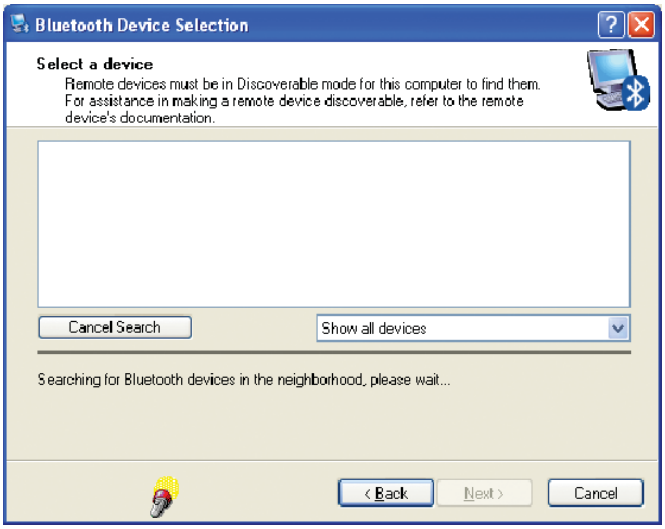
2. Double-click on the My Bluetooth Places icon that is on your desktop.

3. Click on the Bluetooth Setup Wizard icon.

4. Click the circle next to "I want to find a specific Bluetooth device and configure how this computer will use its services". Then click Next to continue.

Bluetooth Setup
Welcome to the Bluetooth Setup Wizard
This Wizard will help you set up your Bluetooth environment.
What would you like to do?
I know the service I want to use and I want to find a Bluetooth device that provides that service.
I want to find a specific Bluetooth device and configure how this computer will use its services.
I want to configure the Bluetooth services that this computer will provide to remote devices.
I want to change the name and/or device type that this computer displays to other Bluetooth devices.
< Back
Next >
Cancel

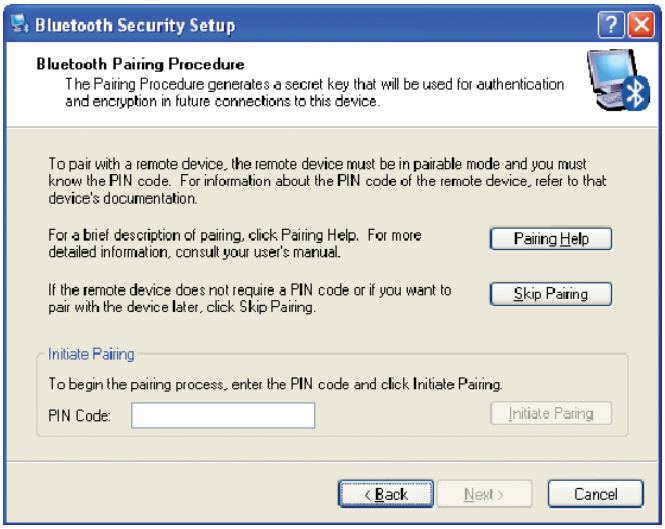
5. Once you see the other computer displayed, click on its icon and then click Next.


Bluetooth Device Selection
Select a device
Remote devices must be in Discoverable mode for this computer to find them. For assistance in making a remote device discoverable, refer to the remote device's documentation.
Cancel Search
Show all devices
Searching for Bluetooth devices in the neighborhood, please wait...
< Back
Next >
Cancel

6. Pick a simple "Pairing" code and enter it in the box next to "PIN Code". The code should be numbers only, and we recommend using '0000' or '1234'. Write down this code below because you will need to enter the exact same code on the second computer.

PIN Code: _____

Once you have entered the PIN Code, make sure to click Initiate Pairing. Do NOT press the Enter key at this time.


Bluetooth Security Setup
Bluetooth Pairing Procedure
The Pairing Procedure generates a secret key that will be used for authentication and encryption in future connections to this device.
To pair with a remote device, the remote device must be in pairable mode and you must know the PIN code. For information about the PIN code of the remote device, refer to that device's documentation.
For a brief description of pairing, click Pairing Help. For more detailed information, consult your user's manual.
Pairing Help
If the remote device does not require a PIN code or if you want to pair with the device later, click Skip Pairing.
Skip Pairing
Initiate Pairing
To begin the pairing process, enter the PIN code and click Initiate Pairing.
PIN Code:
Initiate Pairing
< Back
Next >
Cancel

7. Go to the second computer. You should see a window similar to the once below. Enter the same PIN code that you used on the fist computer. Click OK.

Bluetooth PIN Code Request
Device Name:
LESLEY_SONY_VAI
Before a connection can be established, this computer and the device above must be "paired."
The Bluetooth pairing procedure creates a secret key that is used in all future connections between these two devices to establish identity and encrypt the data that these devices exchange.
To create the paired relationship, enter the PIN code and click OK.
Bluetooth PIN Code:
OK
Cancel
Help

3.3.2 Pairing With Non-PC Bluetooth Devices

Pairing with devices other than PCs can be easily accomplished through the use of the Bluetooth Setup Wizard. We strongly suggest reading the user manual for the Bluetooth device to be paired with your Bluetooth Ready PC.

The following instructions will help to configure you PC to connect to a Cell Phone. If you would like to connect or "pair" your computer to another device like a PDA, please go to Chapter 5 of this User's Manual..

1. Make sure that you have the Bluetooth Adapter installed and configured on each computer or device.

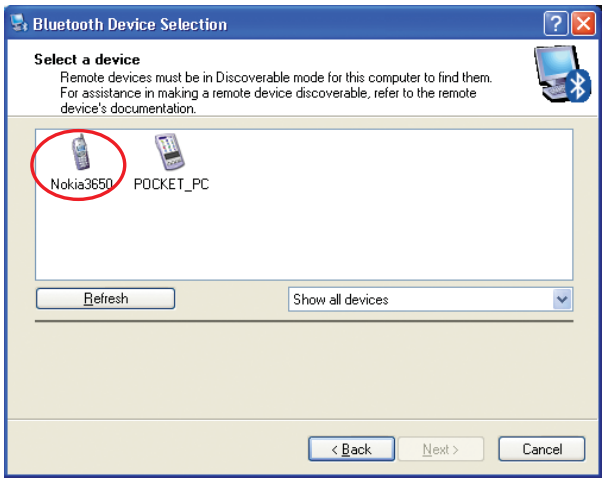
2. Click on the My Bluetooth Places icon that is on your desktop.

3. Click on the Bluetooth Setup Wizard icon.

4. Click the circle next to "I want to find a specific Bluetooth device and configure how this computer will use its services". Then click Next to continue.

Bluetooth Setup
Welcome to the Bluetooth Setup Wizard
This Wizard will help you set up your Bluetooth environment.
What would you like to do?
I know the service I want to use and I want to find a Bluetooth device that provides that service.
I want to find a specific Bluetooth device and configure how this computer will use its services.
I want to configure the Bluetooth services that this computer will provide to remote devices.
I want to change the name and/or device type that this computer displays to other Bluetooth devices.
< Back
Next >
Cancel

5. Once you see the other device displayed, click on its icon and then click Next.


Bluetooth Device Selection
Select a device
Remote devices must be in Discoverable mode for this computer to find them. For assistance in making a remote device discoverable, refer to the remote device's documentation.
Nokia3650
POCKET_PC
Refresh
Show all devices
< Back
Next >
Cancel

6. Enter the device's "Pairing" code in the box next to "PIN Code". (Note: Some Bluetooth devices may already have a default PIN code. Please refer to the device's user manual.) The code should be numbers only. Write down this code below because you will need to enter the exact same code on the Bluetooth device being paired.

PIN Code: _____

Once you have entered the PIN Code, click Initiate Pairing.

7. Go to the device you are pairing. You should see a window similar to the once below. Enter the same PIN code that you used on the first computer. Click **OK**.

Pairing procedures can be different and are determined by the device manufacturer. Make sure you know the device's Pairing ID prior to pairing. If a device does NOT come with a preset Pairing ID, then you may select one of your own.

3.4 Connect to a Bluetooth Headset

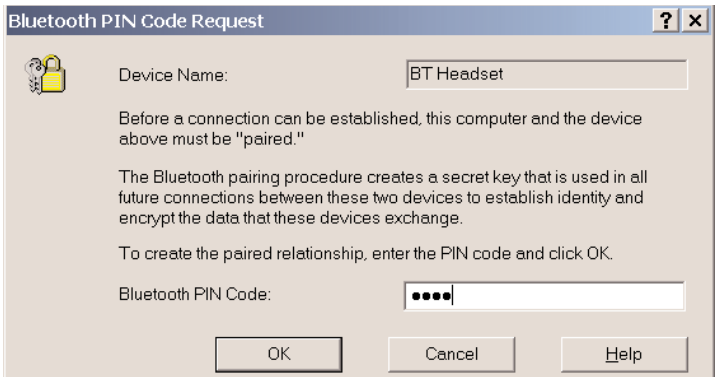
1. Put your Bluetooth headset in discovery mode by pressing and holding the On button for 4-6 seconds. (Each headset has a different setting so make sure and have your Bluetooth Headset manual ready.)

2. Double-click on the My Bluetooth Places icon on your computer desktop.

3. Double-click on the Find Bluetooth Devices icon. If nothing shows up, press F5 or refresh to search again. The BT Headset icon should appear

4. Right-click on the Bluetooth Headset Icon and select Pair Device

5. Enter the headset's PIN code (Refer to the headset manual)


Bluetooth PIN Code Request
Device Name:
BT Headset
Before a connection can be established, this computer and the device above must be "paired."
The Bluetooth pairing procedure creates a secret key that is used in all future connections between these two devices to establish identity and encrypt the data that these devices exchange.
To create the paired relationship, enter the PIN code and click OK.
Bluetooth PIN Code:
OK
Cancel
Help

6. Double-click on the Bluetooth Headset icon.

7. Double-click on the Headset on BT Headset icon. (The service name may vary.

8. When you hear a musical tone from the headset, press the On button on the headset to complete the connection.

Congratulations! You've connected your Bluetooth Headset to your PC. Now you can enjoy listening to music or chatting with your friends online from your wireless headset.

Working with Bluetooth Software

4

The *Action*tec USB Wireless Bluetooth Adapter ships with the management software required to fully integrate your Bluetooth-enabled computer with other bluetooth-enabled devices. There are many methods by which relationships between Bluetooth-enabled devices can be established.

4.1 The Bluetooth Tray

The Bluetooth tray resides in the Windows system tray, which is normally located in the lower-right corner of the screen.

The Bluetooth tray provides fast access to most Bluetooth operations.

The Bluetooth tray provides the following options:

- ***Access My Bluetooth Places***
  Double-click the Bluetooth icon, or right-click the Bluetooth icon and then select Explore My Bluetooth Places.

- ***Access the Bluetooth Setup Wizard.***
  This wizard will help you:

  - Configure how this computer accesses a service on another Bluetooth enabled devices.

  - Locate remote Bluetooth devices

  - Configure the way that this computer provides services to remote Bluetooth-enabled devices.

  - Set the name and type of this Bluetooth device, e.g., “John's PC” and “Desktop.”

  - Access the Bluetooth Configuration Panel—right-click the Bluetooth icon, and then select Advanced Configuration.

- Access the Quick Connect option—right-click the Bluetooth icon, select Quick Connect, and then select the type of service to which you wish to connect.

- Start/Stop Bluetooth on this computer.

4.2 Access My Bluetooth Places

My Bluetooth Places can be accessed directly through Windows Explorer as well as through other methods such as:

- **The Windows system tray**
  Right-click the Bluetooth icon and select Explore My Bluetooth Places! or Double-click the Bluetooth icon

- **The desktop**
  Double-click the Bluetooth icon

- **Microsoft Windows Explorer**
  Open Windows Explorer and select My Bluetooth Places in the Folders pane from the Address shortcut menu.

4.3 Finding Bluetooth Devices

- **Search for Devices**
  Searches out Bluetooth devices in the vicinity, found devices are displayed in **My Bluetooth Places**.

  To start a search for devices, **double-click** the Bluetooth icon in the system tray. Select the Entire Bluetooth Neighborhood, when ready, **click** on the **Bluetooth menu**, from the Bluetooth menu, select **Search for Devices**.

Note: The Bluetooth menu is only visible when My Bluetooth Places is active.

4.3.1 Periodic Device Search

Bluetooth can be configured to automatically search for devices on a regular basis.

To define how often automatic search takes place, **right-click** on the Bluetooth icon in the system tray and select **Advanced Configuration.**

Once the Bluetooth Configuration screen appears select **Discovery**, when completed click **OK.**

4.4 Finding Bluetooth Services

- **Initiating Service Discovery.**
  Right-click on the Bluetooth icon in the system tray and select Explore My Bluetooth Places, right-click a device name and select Discover Available Services from the shortcut menu.

Bluetooth-enabled devices can have access to a set of services provided by the Bluetooth-enabled computer. For example, if this computer allows a remote Bluetooth device to send a fax using a fax modem that is physically attached to this computer, then this computer is providing the Bluetooth fax service.

Some services are hardware dependent; this computer cannot provide the fax service unless it has a physical fax modem.

Some Bluetooth services use virtual "hardware." The Bluetooth Serial Port service, for example, does not use a physical port on this computer. Instead, it creates virtual serial ports that Windows applications can see and use as if they were actual physical ports.

Each Bluetooth service that this computer is capable of providing can be started automatically when Bluetooth starts. Each service can be setup to require security measures before allowing a remote Bluetooth device to connect.

Bluetooth services require a Bluetooth application on the remote device; services and applications usually have coinciding names; i.e., there is a Bluetooth Fax Service and a Bluetooth Fax Application.

4.4.1 Bluetooth Supported Services

- **Bluetooth Serial Port**
  Allows for a wireless connection between two devices. This connection can be used by applications as though a physical serial cable connected the devices.

- **Dial-up Networking**
  Allows a device to use a modem that is physically attached to another Bluetooth device.

- **Fax**
  Allows a device to send a fax using a remote Bluetooth cell phone, modem,or computer.

- **File Transfer**
  Allows a device to perform file system operations on another Bluetooth device; browse, open, copy, etc.

- **Headset**
  Allows a Bluetooth headset to be used as the audio input/output mechanism for another Bluetooth device, such as a computer or cell phone.

- **PIM Item Transfer**
  Allows two Bluetooth devices to exchange Personal Information Manager data such as business cards, calendar items, email messages, and notes.

- **PIM Synchronization**
  Allows two Bluetooth devices to synchronize Personal Information Manager data.

- **Network Access**
  Allows a device to access a Local Area Network via a second Bluetooth device that is physically connected to the network or allows a remote device to become part of an ad hoc network provided by the Bluetooth server.

- **Audio Gateway**
  Allows the microphone/speakers on Bluetooth device (typically a computer) to be used as the audio input/output mechanism for a remote Bluetooth device, such as a cell phone.

All Bluetooth servers do not necessarily provide all of these services. For example, network gateways may provide only the Network Access service.

4.5 Bluetooth Connection Status

The Bluetooth Connection Status dialog box displays information about the state of a connection and provides a means to disconnect an active connection.

- **Display the Connection Status dialog box**
  Right-click on the Bluetooth icon in the system tray and select Explore My Bluetooth Places, select a device name and select Status from the shortcut menu.

The Information provided in the Connection Status Dialog box is**:**

- **Status**
  Connected or Not Connected.

- **Device Name**
  The name of the device to which this computer is connected.

- **Duration**
  The length of time that this connection has been established, displayed in hours, minutes and seconds. Depending on the service, the connection may time out (automatically disconnect) after a specific period of inactivity.

- **Activity**
  The number of bytes sent and received over the connection.

- **Signal Strength**
  A graphic indicator that ranges from too weak through good to too strong.

Note: To change the power transmission level of this computer: from the Bluetooth Configuration Panel, Hardware tab, click the Advanced button, and then change the setting in the Maximum Power Transmission drop-down list. The Advanced button is not available in all countries.

The controls in the Bluetooth Connection Status dialog box are

- **Properties button**
  Displays the Bluetooth Properties dialog box for this connection.

- **Disconnect button**
  Closes this connection.

- **Close button**
  Closes the Bluetooth Connection Status dialog box.

4.6 BLUETOOTH DEVICES AND SERVICES

Bluetooth devices and services can be easily accessed and identified by a simply visual reference, the following icons provide at-a-glace feedback about a device or service's status by changing appearance.

4.6.1 System Tray

When your Bluetooth adapter is installed correctly, the system tray will display the appropriate icon for the current state of your local Bluetooth device.

Figure 1: System tray Bluetooth Icon

Bluetooth Icon Indicates Bluetooth Status		
Enabled	Disabled	Connected
Blue with White	Blue with Red	Blue with Green

4.6.2 Connected Device Icons

The connected devices icons are a quick method by which the end user can visually verify the status of a Bluetooth enabled-device that has a relationship with the local computer's Bluetooth adapter.

Icons differ in look from Windows 9x, Me, Windows 2000, and Windows XP. We have provided a guide for you based on the operating system.

Figure 2: Connected Device Status Icons for Win9x, Me, 2000

Device Icons for Windows 9x, Me and 2K			
Name	Normal	Connected	Paired
Audio Gateway			
Desktop			
Headset			
Human Interface Device			
Laptop			
Modem			
Network Access Point			
Personal Digital Assistant			
Printer			
Telephone			
Unknown			

Figure 3: Connected Device Status Icons for Windows XP

Name	Normal	Connected	Paired
Audio Gateway			
Desktop			
Headset			
Human Interface Device			
Laptop			
Modem			
Network Access Point			
Personal Digital Assistant			
Printer			
Telephone			
Unknown Device			

4.6.3 Services Status Icons

Each connected Bluetooth-enabled device provide a set of services that are available to the local computer's USB Wireless Bluetooth adapter. Visual icons referenced are provided to show the status of each available service.

Figure 4: Available Services Status Icons for Windows 9x, Me, 2000

Service Icons for Windows 9x, Me and 2K			
Name	Normal	Connected	Not Available*
Audio Gateway			
Dial-up Networking			
Fax			
Headset			
Network Access			
PIM Item Transfer			
PIM Synchronization			
Public Folder			
Serial Port			
*Services may be unavailable because they are in use or because the necessary hardware is not installed.			

Figure 5: Available Services Status Icons for Windows XP

Service Icons for Windows XP			
Name	Normal	Connected	Not Available*
Audio Gateway			
Dial-up Networking			
Fax			
Headset			
Network Access			
PIM Item Transfer			
PIM Synchronization			
Public Folder			
Serial Port			
*Services may be unavailable because they are in use or because the necessary hardware is not installed.			

4.7 Send to Bluetooth

This feature is used to send specific information to other Bluetooth-enabled devices. Valid Data types include:

- **Files from Microsoft Explorer**
- **Documents from Microsoft Office applications, including:**
  - Word
  - Excel
  - Access
  - PowerPoint.
- **Microsoft Outlook items, including**
  - Contacts
  - Appointments
  - Tasks
  - Messages
  - Notes

- **To use Send to Bluetooth**

1.) In the application:
a) Microsoft Explorer
Select one or more files to be transferred.
(Folders cannot be transferred).

b) Microsoft Office
Only the document in the active window can be transferred.

b) Microsoft Outlook
Select one or more items to be transferred.

2.) From the application's File menu, select Send To, and then select Bluetooth from the shortcut menu.

3.)Select a device from the shortcut menu to send the data or Select Other, choose a device from the list, and then click OK to send the data.

Configuring for Other Services / Applications

5

The *Action*tec USB Wireless Bluetooth Adapter allows configuration of Bluetooth services, client applications, hardware, security, discovery, accessibility, default paths, event notification and other Bluetooth related item.

5.1 Opening Bluetooth Configuration

- **From the Windows Control Panel**
  Access the Windows Control Panel, **Double-click** the Bluetooth Configuration Icon.
- **From the Windows System Tray**
  Right-click the Bluetooth icon, and select Advanced Configuration from the shortcut menu.

5.2 Bluetooth Services vs. Applications

- **Bluetooth Services**
  These are services that this computer provides to remote Bluetooth devices. The Bluetooth services on the Bluetooth-enabled computer are referred to collectively in the Bluetooth configuration panel as "Local Services."

- **Bluetooth Applications**
  These are software applications on this computer that allow Bluetooth-enabled computer to use the Bluetooth services that are provided by remote devices. The Bluetooth applications on the Bluetooth-enabled computer are referred to collectively in the Bluetooth configuration panel as "Client Applications."

  Bluetooth Services and Bluetooth Applications usually have coinciding names; e.g., there is a File Transfer service and a File Transfer client application.

  How this computer provides a service to remote devices is configured on the Local Services tab of the Bluetooth configuration panel.

  How this computer uses a service that is provided by a remote device is

configured on the Client Applications tab of the Bluetooth configuration panel.

5.3 The Bluetooth Exchange Folder

This is the highest-level directory on the Bluetooth-enabled computer to which a remote Bluetooth device has access.

Devices that have been granted access to this computer's Bluetooth Exchange Folder also have access to all sub-folders contained within that folder and all files in those subfolders.

☞ **Note**: The Bluetooth Exchange Folder is shared by the PIM Item Transfer and the File Transfer services and can be configured from the Properties page of either of those services. When the Bluetooth Exchange Folder is re-configured for either of these services, the other service will be updated to use the new location.

5.4 Configuration Settings

Bluetooth Configuration Setting Screen

The Bluetooth Configuration has various options that can be configured by the user.

- **General Settings Tab**
  The settings on the General tab of the Bluetooth Configuration Panel determine information that is displayed to remote devices.
  - **Identity**
    - **Computer Name**
      In this field, you are REQUIRED to enter a unique name to identify this computer to other Bluetooth devices in the vicinity; this field cannot be left blank.
    - **Computer type**
      Allows users to select either Personal Computer or Laptop Computer from the shortcut menu to set the type of icon remote devices will use to represent this computer.

5.5 Bluetooth Applications

5.5.1 Overview

Some built-in Bluetooth applications provide full functionality for a specific task, such as locating other Bluetooth devices or synchronizing two Personal Information Managers.

Other built-in Bluetooth applications provide a way for standard Windows applications to accomplish their tasks wirelessly. For example, a Bluetooth application may create a wireless serial connection between computers or provide wireless access to the Internet.

The difference between Bluetooth Applications and Bluetooth Services are described as follows:

- **Bluetooth Applications**
  These are software programs running on the Bluetooth-enabled computer that allow the Bluetooth-enabled computer to use the Bluetooth services that are provided by other devices. In the Bluetooth configuration panel, these programs are referred to collectively as "Client Applications."

- **Bluetooth Services**
  These are software programs running on the Bluetooth-enabled computer that provide a service to other devices. In the Bluetooth configuration panel, these applications are referred to collectively as "Local Services."

☞ **Note:** Client Applications and Local Services usually have coinciding names; e.g., there may be a Fax service and a Fax application.

5.5.2 Bluetooth Applications General Configuration

All of the built-in Bluetooth applications allow you to rename the application and to require a secure connection when using the application. Bluetooth applications are easy to access and configure.

- In the Windows system tray, **right-click** the Bluetooth icon and select Advanced Configuration from the shortcut menu. In the Bluetooth configuration panel, **click** the **Client Applications** tab and highlight the application to be configured and then click Properties (or double-click the application).

5.5.3 Human Interface Device

Overview

The Human Interface Device (HID) Application allows this computer to wirelessly use one or more remote Bluetooth HIDs as input/output devices. For example, the HID Application allows this computer to use a Bluetooth keyboard and a Bluetooth mouse.

Create a Bluetooth HID connection

☞ **Note:** Some HIDs have multiple modes. Before establishing a connection, be sure the HID is in the desired mode. For example, in the case of an HID that can function as both a mouse and a laser pointer, be sure the mode switch is set to "Mouse" before attempting to connect.

Open a connection to a Bluetooth Human Interface Device using one of these techniques:

- From My Bluetooth Places
- Using the Bluetooth Setup Wizard

Once an HID connection is established, that connection will persist. If the computer is shut down, when the computer is turned on again the connection will re-establish automatically.

☞ **Note:** HIDs usually have a button, which is sometimes difficult to find, that must be pressed before other Bluetooth devices can locate the HID. Even after the button is pressed, the HID can only be discovered for a limited time, and then the button must be pressed again. The time period can be as short as 30 seconds or as long as 180 seconds. Read the documentation that accompanies the HID before you attempt to connect to the device.

Close an HID connection

Under normal circumstances, there is no reason to close an HID connection; once established the connection is maintained automatically, even during the power off and power on processes. If, for some reason, the connection must be closed: from My Bluetooth Places, right-click the service name and select Disconnect.

When an HID connection is closed manually by the operator, the connection's "persistence" is broken. The connection must be re-established manually, after which theconnection will again persist until broken manually.

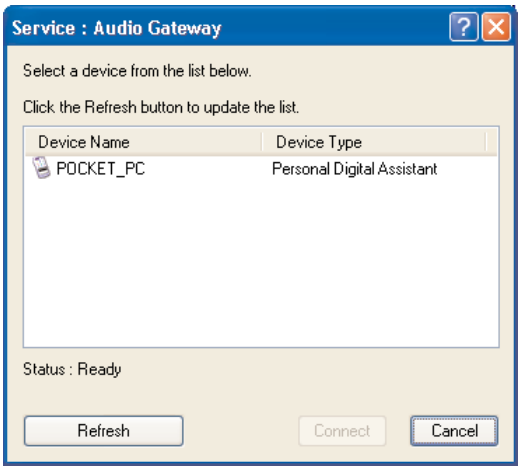
Configure

No configuration is necessary.

5.5.4 Audio Gateway

The Audio Gateway Application allows a remote Bluetooth device to use the Bluetooth-enabled computer's microphone and speakers as the remote device's audio input and output devices.

- Open a connection to the Audio Gateway service that is provided by another Bluetooth device by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Audio Gateway** followed by **Device**. Select the device you want from the window.



Once completed, **click** on **Connect.**

- Close an audio gateway connection by **right-clicking** the Bluetooth icon in the Windows system tray and **click** on **Stop the Bluetooth Device.**

- Configure the Audio Gateway by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab.** When opened, **double click** on **Audio Gateway.** You can choose to change the name of the application and whether this connection is secure or not.

5.5.5 Bluetooth Serial Port

The Bluetooth Serial Port application allows this computer to establish a wireless serial connection with a remote Bluetooth device.

The applications on both this computer and the remote device must be configured to send and receive data to and from the respective communications port (COM port) assigned to the Bluetooth serial port. The wireless serial connection may then be used by the applications as though a physical serial cable connected the devices.

- Establish a Bluetooth Serial Port connection to another Bluetooth device by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Bluetooth Serial Port** fol lowed by **Device.** Select the device you want from the window and **click** on **Connect.**

- Close a Bluetooth Serial Port connection to another Bluetooth device by **right-clicking** the Bluetooth icon in the Windows system tray and **click** on **Stop the Bluetooth Device.**

- Configure the **Bluetooth Serial Port** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Bluetooth Serial Port.**
  You can choose to change the name of the application and whether this connection is secure or not. You can also choose the communications port (COM port) to be used.

☞ **Note:** Unless you have a specific reason to do so, DO NOT CHANGE the default COM Port setting.

5.5.6 Dial-Up Networking

The Bluetooth Dial-up Networking application allows the Bluetooth-enabled computer to use a modem that is physically connected to a remote device to access the Internet or log on to a remote network.

- Open a connection to the Dial-up Networking service that is provided by another Bluetooth by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Dial-up Networking** followed by **Device**. Select the device you want from the window and **click** on **Connect.**

  After the Bluetooth dial-up networking connection is established it can be used the same way as any other networking connection. For example, you can open a browser and explore the World Wide Web, if the remote computer has Internet access.

- Close a Dial-up Networking connection to another Bluetooth device by **right-clicking** othe Bluetooth icon in the Windows system tray and **click** on **Stop the Bluetooth Device**.

- Configure the **Dial-up Networking** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Dial-up Networking.**
  You can choose to change the name of the application and whether this connection is secure or not. You can also choose the virtual device to be used.

☞ **Note:** Unless you have a specific reason to do so, DO NOT CHANGE the default Bluetooth device or alter the device's configuration.

5.5.7 Fax

The Bluetooth Fax service allows this computer to send a fax using a Fax/Modem that is physically connected to a remote device.

- To Send a Fax, open a connection to the Fax service that is provided by another Bluetooth device by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Fax** fol lowed by the Device of choice. Select the device you want from the window and **click** on **Connect.**

  Open or create the document to be faxed and select the "Print," "Send to Fax Recipient" or similar command that is available in most applications.

- Fax Connections close automatically when the Fax transmission is complete.

- Configure the **Fax** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Fax** You can choose to change the name of the application and whether this connection is secure or not.

5.5.8 Headset

The Headset application allows this computer to use a Bluetooth headset (or any other device that offers the Bluetooth headset service) as the audio input and output device for the Bluetooth-enabled computer.

Possible uses include:

- If the Bluetooth-enabled computer has on-board telephone hardware, a Bluetooth headset might be used as the audio input/output device to make or receive telephone calls.

- If the Bluetooth-enabled computer has voice recognition capabilities, a Bluetooth headset might be used as the audio input device.

  Any other scenario that requires audio input/output can potentially take advantage of a Bluetooth headset to replace a hardwired microphone and/or speakers.

- Create a Headset connection by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Headset** followed by the Device of choice. Select the device you want from the

window and **click** on **Open.**

☞ **Note:** Most Bluetooth headsets "ring" when a connection is attempted; answer the ring to complete the connection and begin using the headset as the audio input/output device for this computer.

- Close a Headset connection by **right-clicking** the Bluetooth icon in the Windows system tray and **click** on **Stop the Bluetooth Device**.
- Configure the **Headset** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Headset.** You can choose to change the name of the application and whether this connection is secure or not.

5.5.9 File Transfer

The Bluetooth File Transfer application allows this computer to perform file operations on the Bluetooth Exchange Folder (and the folders and files it contains) of a remote device.

- Copy to/from a remote device by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **File Transfer** followed by the Device of choice. Select the device you want from the window and **click** on **Open.**

  Use drag-and-drop to copy any file or folder contained in the Public Folder of the remote device to the desired folder on the Bluetooth-enabled computer. You can also drag-and-drop files or folders from the Bluetooth-enabled computer to the remote device's Public Folder (and its sub-folders).

- **Other File Operations**
  Right-click a file or folder in the remote device's Public Folder for a context sensitive menu. All potential menu options may not be available at all times.

  Potential menu options include:
  - **Open**
    Opens the selected file on this computer, using the default application for this type of file.
  - **Print**
    Sends the selected file to this computer's default printer.

- **Send To**
  - 3 ½ floppy (A)—the 3 ½ inch floppy drive on this computer
  - Bluetooth Exchange Folder—the Bluetooth Exchange Folder on this computer.
  - Rename—applies only to empty folders; file names and the names of folders that contain objects cannot be changed using this technique.

- **Cut, Copy, Paste, Delete, Refresh, View & New**
  Standard Windows functions.

- Configure the **File Transfer** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **File Transfer.**
  You can choose to change the name of the application and whether this connection is secure or not.

5.5.10 Network Access

The Bluetooth Network Access application makes it possible for this computer to connect to a Local Area Network via a physical connection on a remote Bluetooth device or to connect to an ad hoc network provided by a remote Bluetooth device.

The type of network connection that is available is determined by the configuration of the remote Bluetooth device.

- Create a **Network Access** connection by **right-clicking** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Network Access** followed by **Device**.

- Close a **Network Access** connection by **right-clicking** the Bluetooth icon in the Windows system tray and **click** on **Stop the Bluetooth Device**.

- Configure the **Network Access connection** by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Network Access.**
  You can choose to change the name of the application and whether this connection is secure or not.

5.5.11 PIM Synchronization

The PIM Synchronization Application is used to synchronize the Personal Information Manager (PIM) database of this computer with the PIM database of a remote Bluetooth device.

The supported PIMs are:
- Microsoft Outlook
- Microsoft Outlook Express
- Lotus Notes. (Version 5 or less)

The supported data types are:
- Business cards
- Calendar items
- Email (with or without attachments)
- Notes.

- Configure the **PIM Synchronization** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **PIM Synchronization.**
  - You can choose to change the name of the application and whether this connection is secure or not.
  - The PIM items to be synchronized and the PIM on the Bluetooth-enabled computer with which such items should be synchronized

☞ **Note:** If synchronization is enabled for a specific item type, but is not enabled for that item type on the remote device, synchronization WILL NOT take place for that item.

- The data item types which can be synchronized are:
  - Business cards
  - Calendar items
  - Email (with or without attachments-see below)
  - Notes

  Possible synchronization options data item types include:
  - **Do Not Synchronize**
    This item type will not be synchronized.
  - **Synchronize Microsoft Outlook**
    This item type will be synchronized with its matching entry in Microsoft Outlook, regardless of the PIM that contains this entry on the remote device. If a matching Outlook entry does not exist, it will be created.

- **Synchronize Outlook-Express**
  This item type will be synchronized with its matching entry in Express, regardless of the PIM that contains this entry on the remote device. If a matching Express entry does not exist, it will be created.
- **Synchronize Lotus Notes**
  This item type will be synchronized with its matching entry in Lotus Notes, regardless of the PIM that contains this entry on the remote device. If a matching Notes entry does not exist, it will be created.

☞ **Note:** All choices are not available for all items. For example, "Note" items can only be synchronized in Microsoft Outlook, therefore Lotus Notes and Outlook Express do not appear as options in the "Notes" item shortcut menu.

Personal Information Managers that are not installed on this computer do not appear as options in the shortcut menus.

- Email attachments
  The only option is include or do not include attachments with email that is sent or received on this computer using this service.

5.5.12 PIM Item Transfer

The Bluetooth PIM Item Transfer application allows this computer to send and receive Personal Information Manager items to-and-from a remote Bluetooth device. Item transfer can be accomplished several ways:

- To send, receive or exchange business cards From Windows Explorer, My Bluetooth Places, **right-click** the PIM Item Transfer service on a remote device and select the appropriate option.

- **Right-click** the Bluetooth icon in the Windows system tray. Select **Quick Connect**, and select **Business Card Exchange.** Select a device from the list, select the appropriate option from the shortcut menu, and then click OK.

- From Windows Explorer, My Bluetooth Places, highlight the PIM Item Transfer service on a remote device, and then, from the Bluetooth menu on the Windows menu bar, select the appropriate action.

In addition to the business card options listed above, you can also send Notes (*.vnt), Email (*.vmg) and Calendar (*.vcs) items from this menu.

- From within a supported Personal Information Manager, select one or more items and then, from the PIM's File menu, select Send to Bluetooth.
  Whether sent items are accepted by the remote device is determined by how the remote device's PIM Item Transfer service is configured.

- PIM Item Transfer Connections close automatically when the its task is complete.

  - Configure the **PIM Item Transfer** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **PIM Item Transfer**
  - You can choose to change the name of the application and whether this connection is secure or not.
  - How your business card is handled when it is requested by a remote device.

  - The Send My Business Card options are:
    - **Choose a business card as needed**
      Each time a remote device requests your business card you must select a card from your PIM. If you ignore the request the remote device will receive a timeout notice.
    - **Always send the same business card**
      When this option is selected a dialog appears that allows you to set a default business card, which will be sent automatically when requests are received.

  - Where to store received business cards.
    - Microsoft Outlook
    - Outlook Express
    - Lotus Notes

☞ **Note:** The selected Received Business Cards option does not influence the settings on other PIM-related property pages. For example, even if the PIM Item Transfer service business card option on this computer is configured to "Do Not Accept," the PIM Item Transfer application will still accept business cards that the application has specifically requested

via its"Receive" or "Exchange" functions.

- Email attachments.
  The only option is include or do not include attachments with email that is sent or received on this computer using this service.

5.5.13 Printer

The Bluetooth Printer application allows this computer to use a Bluetooth printer. Once a Bluetooth printer has been properly installed it can be used from this computer in the same way as any other printer would be.

- Configure the **Printer** connection by **right-clicking** the Bluetooth icon in the Windows system tray, select **Advanced Configuration**, and select the **Client Applications Tab**. When opened, **double click** on **Printer.**
  - You can choose to change the name of the application and whether this connection is secure or not.

- **Install a Bluetooth Printer**
  - Perform a search for devices and then, from Entire Bluetooth Neighborhood, right-click a Bluetooth printer, select Add Printer from the shortcut menu and follow the on-screen instructions.

  - When the wizard asks you to select a printer make and model, do so. If your printer is not in the list of options, click Have Disk…, insert the driver disk for the printer, and then navigate to the drive and directory that contains the driver initiation file (*.inf) for the printer.

  - To complete the installation, follow the on-screen instructions.

- **Alternate Printer Installation**
  - From the Windows Control Panel, select Printers, click on Add Printer, click on Next , click on Local printer, and click Next
  - On the Select the Printer Port screen of the wizard:
    a) Select Create a new port
    b) In the Type shortcut menu, select Bluetooth Printer Port, and then click Next
  - On the next screen, select the printer by name, and then click Connect.
  - Install the driver: when asked to select a printer make and model, do so. If your printer is not in the list of options, click Have Disk,

insert the driver disk for the printer, and then navigate to the drive and directory that contain the driver initiation file (*.inf) for the printer.
- To complete the installation, follow the on-screen instructions.

- **Deleting a Printer Installation**
  - Click Start, click on Settings, click on Printers, right-click the printer to be deleted, and then select Delete from the shortcut menu.

5.6 Bluetooth Services

Common Configuration Settings, these properties can be set individually for each Bluetooth service:

- Service Name-the default name of each service can be changed.
- Secure Connection-requires that remote devices provide proof of identity and that all data be encrypted.
- Startup Automatically-starts the service automatically when Bluetooth is started.
- Notifications provide visual and/or audio notification that a remote device is attempting to connect (or has connected) to a service on this computer.

5.6.1 Notifications

There are three types of notification:

- Authentication request, also called a PIN code request
  This notification appears automatically in a balloon over the Windows system tray if a Personal Identification Code is required before a connection can proceed. An audio file can also be associated with the notification.

- Authorization request, also called a connection request
  This type of notification can be visual, audio, or both. It notifies you of attempts to access a Bluetooth service on this computer; the connection will not proceed until you click the balloon that appears over the Windows system tray. If the notification balloon is ignored, the connection request will time out and fail.

- Notification only
  This type of notification does not effect access in any way; it is solely

for information purposes to let you know that a connection has been established.

Example

Both Authentication and Authorization request notifications are controlled by whether Secure Connection is enabled for an individual service. An example of how notifications might work when a remote device attempts to access a service on this computer, if all notifications are enabled:

- Authentication: a balloon notification (audio optional) appears to prompt for a PIN code. If the PIN code does not match the code entered on the remote device, the connection will not be allowed. Once the remote device has been authenticated this notification will not appear again, unless the paired relationship is broken and the devices must re-pair.

- Authorization: a balloon notification appears and/or a sound file provides audio notification that a remote device is attempting to access a Bluetooth service on this computer. Click the balloon to proceed. A dialog box appears that offers the option of letting the connection proceed this time only or to always allow this particular remote device to use the service it is attempting to access.

- Once a connection has been authorized, an additional visual and/or audio notification may appear (if enabled). This notification is for information only to inform the operator that a connection has been established.

After two devices are paired (step 1, above), the authentication notification will no longer appear when a connection is attempted. If "Always allow…" is enabled during the authorization process (step 2, above), the authorization notification will not appear on future connection attempts. Connection notification (step 3, above) only happens if it has been enabled on the Notifications tab of the individual service being accessed.

Service Access Notification

"Notifications" lets you associate a sound (Windows *.wav file) and/or a visual indication with access attempts by remote devices. A different notification sound can be associated with each local Bluetooth service.

Associate a Sound with Service Access

From the Bluetooth Configuration Panel, Local Services tab:

- Double-click a service name and then select the Notifications tab.
- Check the desired options; visual and sound may both be selected for a single event.
- Choose a sound; click the Browse button and navigate to the sound file (*.wav) to be used for notification. To preview the sound file, click the play (>) button.
- Click OK to close the service's property dialog box.

5.6.2 Audio Gateway

The Bluetooth Audio Gateway service allows this computer to use a remote Bluetooth device's microphone and speakers as this computer's input and output devices.

For example, if this computer has voice recognition capabilities, a Bluetooth headset might be used as the audio input device.

Hardware Requirements

- The Bluetooth radio on both this computer and the remote device must support audio.
- The remote device handles both audio input and output for this computer; therefore, this computer does not require a sound card, microphone, or speakers.

Configure the Audio Gateway Service

From the Windows system tray, right-click the Bluetooth icon, select Advanced Configuration, click Local Services, and then double-click the Audio Gateway service. Set the common configuration properties of the service, and then click OK.

5.6.3 Bluetooth Serial Port

The Bluetooth Serial Port service allows a remote Bluetooth device to establish a wireless serial connection with this computer. The wireless serial connection may be used by applications as though a physical serial cable connected the devices.

To Establish a Bluetooth Serial Port connection

- The connection must be initiated from the remote device by the Bluetooth Serial Port application.

Determine the communications port being used by this computer for the Bluetooth Serial Port

- In the Windows system tray, right-click the Bluetooth icon, select Advanced Configuration, and then the Local Services tab. The COM port assigned to this service is the last item in the Bluetooth Serial Port service row. Configure the application on this computer that will use this service to send its data to this COM.

Add a Bluetooth Serial Port

- The Bluetooth Serial Port service has one pre-configured Bluetooth Serial Port, but additional Bluetooth Serial Ports can be added as needed.

To Add a Port

- From the Bluetooth Configuration Panel, Local Services tab, click Add Serial Service.
- In the properties dialog box, modify the properties enter a unique name (less than 99 alphanumeric characters).
- Select secure connection, if desired.
- Select Startup Automatically, if desired
- From the COM Port shortcut menu select a communications port that is not assigned to any other service.
- Click OK.

To Remove a Bluetooth Serial Port

- From the Bluetooth Configuration Panel, Local Services tab, select the port to be removed and then click Delete.

☞ **Note:** The Delete button is only available when a Bluetooth Serial Port is selected.

5.6.4 Dial-up Networking Service

The Bluetooth Dial-up Networking service makes it possible for a remote Bluetooth device to use a modem that is physically connected to this computer. The remote device can then access the Internet or log on to a remote network.

Configure the Audio Gateway Service

From the Windows system tray, right-click the Bluetooth icon, select Advanced Configuration, click Local Services, and then double-click the Dial-up Networking service.

- Select the physical modem to be used from the Modems: shortcut menu.
- Set the common configuration properties of the service, then click OK.

5.6.5 Fax Service

The Fax service allows a remote Bluetooth device to send a Fax via a modem that is physically attached to this computer.

Configure the Fax Service

From the Windows system tray, right-click the Bluetooth icon, select Advanced Configuration, click on Local Services, and then double-click the Fax service.

- Select the physical modem to be used from the Modems: shortcut menu.
- Set the common configuration properties of the service, then click OK.

5.6.6 File Transfer Service

The File Transfer service allows this computer to perform file operations on the Bluetooth Exchange Folder (and the folders and files it contains) of a remote device.

Basic Setup Procedure

- Right-click the Bluetooth icon and select Explore My Bluetooth Places. Configure Explorer so that the Folders view is visible (View > Explorer Bar > Folders).
  In the Folders pane, select Entire Bluetooth Neighborhood and then, the menu bar, select Bluetooth and click Search For Devices.
  In the Folders view, expand Entire Bluetooth Neighborhood to show the devices in the vicinity.

Copy to/from a Remote Device

- In the Folders pane of Explorer, from the Entire Bluetooth Neighborhood branch, select a device and expand that branch to view the Bluetooth Exchange Folder of the remote device.

  ☞ **Note:** "Public Folder" is not available, the remote device is not configured to allow remote file opera tions.

  Use drag-and-drop to copy any file or folder contained in the Public Folder of the remote device to the desired folder on this computer. You can also drag-and-drop files or folders from this computer to the Public Folder (and its sub-folders) of the remote device.

Other File Operations

- Right-click a file or folder in the remote device's Public Folder for a context sensitive menu. All potential menu options may not be available at all times. Potential menu options include:

- **Open**
  Opens the selected file on this computer, using the default application for this type of file.
- **Print**
  Sends the selected file to this computer's default printer.
- **Send To**
  - 3 ½ floppy (A)—the 3 ½ inch floppy drive on this computer
  - Public Folder on My Device—the Public Folder on this computer.
- **Rename**
  Applies only to empty folders; file names and the names of folders that contain objects cannot be changed using this technique.
- **Cut, Copy, Paste, Delete, Refresh, View & New**
  - Standard Windows functions.

5.6.7 Headset Service

The Bluetooth Headset Service allows this computer to provide audio input/output for remote Bluetooth devices. For example, if the remote device is a Bluetooth telephone, this computer's microphone and speakers can be used as speakerphone input and output for that device.

☞ **Note:** Windows 98 has limitations. Windows 98 cannot convert audio files with the extension m3u (e.g., myfile.m3u) into the Pulse Code Modulation (PCM) audio format used by Bluetooth headsets; this is a limitation of Windows 98. Other versions of Windows (2000, ME and XP) can translate m3u audio files into the PCM format.
Possible solutions are:
• Upgrade to a newer version of Windows
• Use an m3u-to-mp3 conversion utility to convert the file(s) into a format that is supported by Windows 98. (Conversion utilities are available as freeware or shareware on the Internet.)

Hardware Requirements

- This computer must have a sound card, microphone, and speakers installed.
- The Bluetooth radio on both on this computer and the remote device must support audio.

Configure the Headset Service

- From the Windows system tray, right-click the Bluetooth icon, select Advanced Configuration > Local Services, and then double-click the Headset service.
- Set the common configuration properties of the service, and click OK.

5.6.8 Network Access

The Bluetooth Network Access service makes it possible for a remote Bluetooth device to use the Local Area Network connection that is physically attached to the Bluetooth-enabled computer. After the Bluetooth-enabled computer been configured to provide the Network Access service to other Bluetooth devices, it will not be able to use the Bluetooth Network Access service provided by another Bluetooth device without being re-configured. The Bluetooth-enabled computer cannot be both a Bluetooth Network Access server and a Bluetooth Network Access client at the same time.

- **Setup for Windows 98, SE & Windows Me**

☞ **Note** Internet Protocol routing software is required on Windows 98, SE and Windows Me servers.
Install and configure the routing software as instructed by the software's manufacturer.

- **Configure the server**
  - From the Windows Control Panel, double-click the Network icon.
  - On the Configuration tab, select TCP/IP-> Bluetooth LAN Access Server Driver (scroll down if necessary).
  - Click Properties and select the IP Address tab.
  - Select Specify an IP address
  - Enter an IP Address (suggested value—192.168.1.1)
  - Enter a Subnet Mask (suggested value—255.255.255.0)
  - Click OK twice to close the dialog boxes and then click YES to restart the computer.

- **Setup for Windows 2000 and Windows XP**
  - From the Windows system tray, right-click the Bluetooth icon and select Advanced Configuration from the shortcut menu.
  - In the Bluetooth configuration panel, select the Local Services tab, Network Access and then click Properties....
  - From the Network Access, General properties page, in the Type of service shortcut menu, select “Allow other devices to access the Internet/LAN via this computer,” and then click Configure Connection Sharing.
  - Right-click Local Area Connection, select Properties and then select the Sharing tab.
  - Select Enable Internet Connection Sharing for this connection, click OK, and then click YES in the confirmation dialog box.

• **Configure for Group Ad Hoc Networking**

1. From the Windows system tray, right-click the Bluetooth icon and select Advanced Configuration from the shortcut menu.

2. In the Bluetooth configuration panel, select the Local Services tab, Network Access and then click Properties....

3. From the Network Access, General properties page, in the Type of serviceshortcut menu, select "Allow other devices to create a private network with this computer."

4. Click OK.

5.6.9 Item Transfer

The PIM Item Transfer service allows Personal Information Manager items to be transferred between this computer and a remote Bluetooth device. The Four data types are supported:

- Business Cards
- Calendar Items
- Email Messages
- Notes

Each data type can be saved in any of the supported and installed PIMs.

☞ **Note:** PIMs which are not installed on this computer will not appear in the shortcut menus.

When the PIM that is associated with an individual data type is changed on the PIM Item Transfer page, that data type is also changed for the PIM Synchronization service.

• **Configure**
In addition to the configuration options common to all Bluetooth services, this service also has settings that determine:

• How business card requests are handled.
  • **Never send my business card**
    Ignore the request
  • **Choose a business card as needed**
    When prompted, select a business card to be sent to the

requester.

- **Always send the same business card**
  When a request is received always send the same business card. When this option is selected, a dialog box appears from within an installed Personal Information Manager (if more than one is installed on this computer) and an existing business card can be selected.
- **Previously sent business cards**
  Once a card is selected using the "Always send the same business card" option, above, that card will be added to the shortcut menu as an option.

☞ **Note**: Previously sent business card additions to the menu are limited to ten, after which the oldest contact will be replaced.

- Where to store inbound data items, on an individual basis. Options include (not all options apply to all items):
  - **Do Not Accept**
  - **Any of the installed PIMs on this computer**
  - **Save to Folder**

- The Bluetooth Exchange Folder location—the directory on this computer where inbound items that are not to be saved in a PIM will be kept.

☞ **Note:** This is also the folder where the File Transfer service stores inbound items. If this folder is reconfigured here, it will also be reconfigured in that service automatically.

- Whether to send/receive attachments with email. Check or clear this option, as appropriate.

- **Close a PIM Transfer Connection**
  PIM Item Transfer connections close automatically when the data transfer is complete.

- **Default Business Card Selection**
  When the "Always send the same business card" option is selected, a dialog box appears to allow the selection of a default business card. The first time the dialog box appears it provides a way to choose the Personal Information Manager that stores the default business card. Click the down-arrow in the PIM shortcut menu and select the PIM to be used. On subsequent appearances of this dialog box, the PIM

selection option is not available.

• **Change the Selected PIM**

On the PIM Item Transfer properties page, "Received items" section, there is a Business Cards shortcut menu. When a PIM was selected during initial setup the selected item in this menu was set to the same PIM. To change the PIM used for the default business card, open this shortcut menu and select a new PIM.

☞ **Note**: A new default business card must be selected from the database of the newly selected PIM.

• **Choose a default business card**

• In the Select a Bluetooth Business Card dialog box that appears when "Always send the same business card" is selected, highlight the card.

☞ **Note**: Once a card is highlighted, if you "hover" the mouse pointer over that selection, a balloon appears with additional information about that contact.

• Click OK to choose a highlighted business card and return to the PIM Item Transfer Properties page. The chosen contact now appears in, and is selected in, the "Business card requests" shortcut menu.

If the "Always send the same business card" option is selected again, and a different contact chosen, the properties page will display both contacts in the shortcut menu.

☞ **Note**: In addition to the default menu options, the shortcut menu can hold up to ten contact names.

5.6.10 PIM Synchronization

The PIM Synchronization service can be used by a remote device to synchronize its Personal Information Manager (PIM) database with the PIM database of this computer. Four data types are supported:

• Business Cards
• Calendar Items
• Email Messages
• Notes

Whether an individual item is accepted and where it is stored, when accepted, is configured in the PIM Item Transfer service. If that service is not configured to store a particular data type in Outlook, then that data type cannot be synchronized.

☞ **Note**: Data types that will be synchronized must be saved in the PIM database (this is configured in the PIM Item Transfer service); otherwise, that data type will not be available for selection (it will be grayed out) in the PIM Synchronization configuration settings.

Microsoft Outlook permits duplicate entries, so all duplicates may not be exchanged in the synchronization process.

☞ **Note:** Only Outlook's default contacts folder is synchronized. Items in sub-folders are not synchronized. Items that are moved from the default folder to a sub-folder will appear to have been deleted the next time synchronization takes place.

5.7 Hardware Settings

The Hardware tab of the Bluetooth Configuration Panel provides basic information about the Bluetooth hardware installed on this computer and access to the Advanced Settings dialog box, if required:

- Devices
  - **Name**
    The name of the device, e.g., Actiontec Bluetooth Device
  - **Type**
    The type of device, e.g., USB.

- Device Properties
  - **Device status**
    Indicates that the device is operating properly or that there is a problem/conflict.
  - **Manufacturer**
    The name of the company that manufactured the device selected in the Devices section of this dialog box.

  - **Firmware Revision**
    The manufacturer's firmware version number.

- **Device Address**
  The Bluetooth Device Address (BDA or BD_Addr) assigned to this device when it was manufactured.
- **HCI Version**
  The version number of the Bluetooth Specification that the Host Controller Interface complies with.
- **HCI Revision**
  The revision number of the Bluetooth Specification that the Host Controller Interface complies with.
- **LMP Version**
  The version number of the Bluetooth Specification that the Link Manager Protocol complies with.
- **LMP Sub Version**
  The sub-version number of the Bluetooth Specification that the Link Manager Protocol complies with.

- The Advanced button: displays the Advanced Settings dialog box, which allows you to select the country code and transmission power settings. This option is not available on all systems.

5.7.1 Advanced Settings

When available, this dialog box is reached from the Hardware tab of the Bluetooth Configuration Panel.

☞ **Note:** Depending on the country in which the hardware is sold and/or in which it will be used, the Advanced button may not be present.

This dialog box allows changes to the following settings:

- **Country Code**
  North America, Europe (except France), and Japan
  France and China

- **Maximum Transmission Power**
  High
  Medium
  Low.

Click Apply to implement the changes. A dialog box appears with notification that the Bluetooth device attached to this computer must be reset before the change(s) will take effect.

Click Yes to reset the Bluetooth device now—all open Bluetooth connections will be closed.

Click No to save the changes—the changes will be applied the next time the Bluetooth device is reset or restarted.

5.8 Accessibility Settings

The Accessibility tab of the Bluetooth Configuration Panel lets you specify whether remote devices may access this computer, which remote devices have access, and whether an audio warning is played when a Personal Identification Number (PIN code) is required.

- **Allow other devices to discover this computer**
  Select "Let other Bluetooth devices discover this computer" to permit remote Bluetooth devices to find and report this computer.
  If "Allow No devices" (below) is selected, this option is not available.

- **Control the types of devices that are allowed to connect to this computer**
  From the "Devices allowed to connect to this computer" shortcut-menu, select:

  - **No devices**
    No remote devices are permitted to initiate a connection with this computer. However, this computer can still initiate connections with remote Bluetooth devices.
  - **All devices**
    All remote devices are permitted to connect to this computer. Connections are subject to additional security restrictions, such as authentication and authorization, that may be required by the individual services provided by this computer.
  - **Only paired devices**
    Only devices that have been paired with this computer are allowed to connect to it.
  - **Only devices listed below**
    Only the listed devices are allowed to connect to this computer (see Accessibility, adding and deleting devices).

- **Choose an audio notification file**
  When Secure Connection is enabled for any of the Bluetooth Services on this computer a PIN code is required before that service can be accessed. To chose a notification sound that will play when a remote

device attempts to access a service that requires a secure connection, click Select audio file... and select the sound (*.wav) file to be played.

- **Limit access to this computer to specific remote devices**
  From the Bluetooth Configuration Panel, Accessibility tab, in the Allow shortcut menu, select "Only devices listed below".

- **Add a device to the list**
  • Click Add Device
  • In the Devices with access... dialog box select the desired device(s) and click OK.

☞ **Note:** Multiple devices may be selected using SHIFT + click and/or CTRL + click.

- **Delete a device from the list**
  In the list of devices allowed to access this computer, select the device to be removed from the list, and then click Delete.

5.9 Discovery Settings

The settings on the Discovery tab of the Bluetooth Configuration Panel determine whether this computer looks for other Bluetooth devices automatically, how often it looks and what type of devices it looks for.

- **Periodic Search for Devices**
  When "Look for other Bluetooth devices" is selected, Bluetooth automatically searches for devices every X minutes. X is an whole number between 1 and 60. To change the time between auto inquiries, highlight the existing time and enter the new time.

☞ **Note**: When My Bluetooth Places is first opened it performs an initial automatic search for devices even if "Look for other Bluetooth devices" is not enabled.

- **Determine the devices that will be reported**
  Bluetooth can screen out devices that you do not need access to. The options are:

  - Report all Bluetooth devices
  - Report only selected Bluetooth devices (see Discovery, Adding Specific Devices and Discovery, Deleting Specific Devices)
  - Select the desired option from the drop-down list.

- **Discover Specific Devices**
  The type of device(s) that this computer looks for and reports when it is searching for other Bluetooth devices can be limited through **Limit the remote devices reported.**
  Bluetooth can report only specific devices, specific class(es) of device(s), or specific type(s) of device(s) within a class.

  - Specific devices: an individual computer or Bluetooth cellular telephone are examples of specific devices.
  - Specific class of device: "computer" is an example of a class of devices
  - Specific type of device within a class: "laptop" is an example of a specific type of device within the "computer" class of devices.

  The devices to be discovered can be mixed-and-matched; you can discover one or more specific devices, classes of devices and types of devices within a class at the same time.

- **Remove a device from the list of devices to be discovered**
  In the Bluetooth Configuration Panel, from the Discovery tab, select the device to be removed and click the Delete button.

☞ **Note**: If "Report only selected Bluetooth devices" is not selected the Delete button will not be available.

- **Temporarily override the discovery of specific devices**
  In the Bluetooth Configuration Panel, from the Discovery tab, select "Report all Bluetooth devices." The specifically selected devices will be discovered along with all other devices.
  To re-enable specific device discovery re-select "Report only selected Bluetooth devices."

☞ **Note:** When all devices are deleted an error message will appear if "Report all Bluetooth devices" is not selected.

Security 6

6.1 Authentication

Authentication is used to verify identity; it requires a passkey or link key from the remote device. When a remote device attempts access, a visual and/or audio warning notifies the local operator. If the notification is ignored, access is denied after a preset timeout. When devices are "paired," those devices automatically exchange a link key and authentication is carried out without operator intervention.

6.2 Authorization

Authorization is Yes-or-No security that requires operator intervention to avoid having the connection time out and fail. Authorization is limited to:

- **Yes**, you may connect (click the balloon to proceed)
- **No**, you may not connect (ignore the balloon prompt and the connection will fail).

6.3 Bluetooth Device Identity

Every Bluetooth device has a unique Bluetooth Device Address (BDA) assigned to it during the manufacturing process. This address cannot be changed by the end-user. A device's BDA is usually displayed in hexadecimal format; 00:D0:B7:03:2E:9F is avalid BDA.

Each Bluetooth device also has an operator-configurable, user-friendly name to help distinguish it from other devices. The user-friendly name may be up to 99 alphanumeric characters in length and may contain spaces. My Personal Computer is a valid userfriendly name.

6.4 Encryption

Encrypting data translates it into an unreadable format using a secret key or password. Decrypting the data requires the same key or password that was used to encrypt it.

6.5 Link Key

A unique, internally generated, access code based on a passkey, the Bluetooth Device Address and an internally generated random number. Link keys are generated automatically when devices Pair. After a link key is generated, manual entry of the passkey is not required.

6.6 Pairing Devices

Pairing allows you to avoid entering access information each time a connection is attempted. Paired devices share a unique link key, which they exchange each time they connect.

☞ **Note:** The mate of a pair always appears in My Bluetooth Places, even if the mate is not turned on or is out of connection range.

Paired devices remain paired even when

- One of the devices is not on
- A service connection is interrupted or the service stopped
- One or both devices are rebooted.

To Pair with another device:
If Secure Connection is enabled, devices will pair automatically the first time they connect (a passkey must be successfully exchanged).

To pair with a device manually:
In the Folders pane of My Bluetooth Places, right-click a device, select Pair Device from the shortcut menu, and then follow the on-screen instructions.

Remove Pairing
In the Folders pane of My Bluetooth Places, right-click a paired device and select UnpairDevice from the shortcut menu.

6.7 Passkey

A Passkey is an alphanumeric string up to 16 characters in length. Passkeys are also called Personal Identification Numbers, or PIN codes.

A passkey may be required if the Secure Connection option is enabled for a Bluetooth service or application.

6.8 Secure Connection

A passkey or link key is required each time a connection is attempted. All data exchanged over the Bluetooth connection is encrypted. Depending on other configuration options, authorization may also be required.

6.9 Security Request Dialog Box

A Bluetooth passkey request and/or Bluetooth Authorization request balloon may appear over the Windows system tray when a connection is attempted if Secure Connection is enabled. Click the balloon to proceed.

Troubleshooting 7

Cannot Connect to a Paired Device

Paired devices are always displayed in My Bluetooth Places, even if the remote device is out of range or not powered up. Verify that the remote member of the pair is within radio range, and powered up, and then attempt the connection again.

Cannot Discover Services on an un-paired Remote Device

The remote device may not be powered up or may be out of range.

- Verify that the remote device is powered up.
- Verify that the remote device is in Connectable mode (Bluetooth Configuration Panel > Accessibility tab).
- Perform a Search for Devices to verify that the device is within range.

Dial-up Networking Services does not Start

The Dial-up Networking service will not start unless a properly configured modem is attached to the server.

- Verify that the modem is usable as a local device on the computer to which it is attached.
- In the Bluetooth Configuration Panel, Local Services tab, double-click the Dial-up Networking service:
    - Click the down arrow in the Modem field and select the modem that will be used to dial out
    - Click the OK button
    - Click the OK button to close the Bluetooth Configuration Panel

Determine the Bluetooth Device Address (BDA) of my Hardware Device

In the Bluetooth Configuration Panel, on the Hardware tab, in the Devices section, select the device you want to determine the address of. In the Device Properties section of the dialog box, the fourth entry, Device Address, is the BDA of the selected Bluetooth device.

Determine the Version of the Host Controller Interface (HCI)

In the Bluetooth Configuration Panel, on the Hardware tab, in the Device Properties section, the fifth entry provides Bluetooth Specification compliance information for the Host Controller Interface. The sixth entry contains the Specification Revision information for the Host Controller Interface, if appropriate.

Determine the Version of the Link Manager Protocol (LMP)

In the Bluetooth Configuration Panel, on the Hardware tab, in the Device Properties section, the seventh entry provides Link Manager Protocol version number information. The eighth entry contains the Link Manager Protocol sub-version number information, if appropriate.

Find Information About the Bluetooth Hardware Attached to my Computer

In the Bluetooth Configuration Panel, select the Hardware tab.

Internet Connection Sharing Does Not Work

This occurs because Internet Connection Sharing was enabled when Bluetooth wasinstalled (this is a Microsoft Windows behavior and is considered proper operation). To resolve the "problem":

1. Disable Sharing for the Ethernet adapter:
   a) Windows Control Panel > Network and Dial-up Connections
   b) Right-click "Local Area Connection," select Properties, and then select the Sharing tab.
   c) Clear (uncheck) the box for "Enable Internet Connection Sharing for this connection" and click OK.
2. Re-enable Sharing for the Ethernet adapter; repeat Step 1.c.), and select (check) the sharing box.

If offered an option to select an adapter, select "Bluetooth network adapter." (This option will not appear unless more than one adapter is available.)

If asked to reboot the computer, do so.

Test a Network Access Connection

If the client is hardwired to the LAN, unplug the hardwired connection to ensure that the test checks the wireless connection rather than the hardwired connection. If the server has access to the Internet, open a browser on the client and connect to the World Wide Web. You may also Ping the server from the DOS prompt.

Unknown Port Message when Using a Bluetooth Serial Port

The "Unknown Port" error message usually means an attempt was made to connect a port that was in use. Additional Bluetooth Serial Ports can be added if they are required.

Bluetooth Headset Doesn't Always Function Under Win98

Windows 98 cannot convert audio files with the extension m3u (e.g., myfile.m3u) into the Pulse Code Modulation (PCM) audio format used by Bluetooth headsets; this is a limitation of Windows 98.

Other versions of Windows (2000, ME and XP) can translate m3u audio files into the PCM format. Possible solutions are:

- Upgrade to a newer version of Windows
- Use an m3u-to-mp3 conversion utility to convert the file(s) into a format that is supported by Windows 98. (Conversion utilities are available as freeware or shareware on the Internet.)

Reinstall the Bluetooth Adapter in Windows 2000 & XP

If the Bluetooth Adapter ever has to be uninstalled and reinstalled, it is important to do it correctly. Please follow the following 5 steps.

Step 1: While the Bluetooth Adapter is still connected to your computer, Right Click on My Computer and select Properties. This will bring up the System Properties Window. Click on the Hardware Tab and Click on Device Manager.

Step 2: This will bring up the Device Manger Window. Near the top of the list of devices will be Bluetooth Devices. Click on the plus sign next to it to open it up. You should now see the *Action*tec USB Bluetooth Device BTM200. Right Click on the Device and select Uninstall. This will remove the Device from Device Manager.

Step 3: You may now physically remove the USB Bluetooth Adapter from your computer.

Step 4: Uninstall the Bluetooth software using Add/Remove Programs.

Step 5: You may now reinstall the Bluetooth software and then connect the Adapter by following the install procedure in Chapter 2 of the User's Manual.

Frequently Asked Questions

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What do the red and white icon lights on the Adapter signify?

White: A Bluetooth device is connected to the computer and working.

Red: No Bluetooth device is detected.

My Adapter is not detecting the device with which I want to connect. What do I do?

Make sure the device with which you are trying to connect is Bluetooth 1.1 compliant and set to be discovered.

Can the Adapter link up to a regular 802.11b wireless access point?

No. The Adapter only works with Bluetooth-compliant devices.

I plugged in the Adapter to an available USB port but the "Found New Hardware Wizard" did not start up. What should I do?

The USB ports on the computer may be disabled in the device manager or BIOS. If this is the case, contact your computer manufacturer for information about activating the USB ports.

Everything installed fine and the Adapter was working until I shut down and restarted my computer. Now, the computer is not detecting the Adapter. What should I do?

Some USB host controllers have timing issues at start up. If this happens, while the computer is on, unplug and then replug the Adapter. It should start working again.

What is the range of the Adapter?

The range of the Adapter is approximately 10 meters.

I did a file transfer from one computer to another, but I can't find the file on the computer to which I transferred the file. Does the Adapter put files in a special place?

Yes. Look for the "Bluetooth Exchange" folder in the "My Documents" folder. This is where all files transferred by the Adapter are placed.

Will cordless phones interfere with the Adapter?

The Adapter uses the 2.4Ghz frequency. If your cordless phone uses this frequency, it can cause problems with the Adapter's signal. Different cordless phones use different frequencies and generally have a label to designate the frequency at which they operate.

Notices

Regulatory Compliance Notices

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by A*ction*tec Electronics, Inc., may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC logo – United States only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;

2. This device must accept any interference received, including interference that may cause unwanted operation.

+ *Note*: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

For questions regarding your product or the FCC declaration, contact:

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760 North Mary Ave.
Sunnyvale, CA 94086
United States
Tel: (408) 752-7700
Fax: (408) 541-9005

Actiontec Electronics, Inc. Limited Warranty

Hardware: *Action*tec Electronics Inc. warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for twelve (12) months from the date of purchase from *Action*tec Electronics or its authorized reseller.

*Action*tec Electronics' sole obligation under this express warranty shall be, at *Action*tec's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, *Action*tec Electronics may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of *Action*tec Electronics Inc. Replacement products may be new or reconditioned. *Action*tec Electronics warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

SOFTWARE: *Action*tec Electronics warrants to Customer that each software program licensed from it will perform in substantial conformance to its program specifications, for a period of ninety (90) days from the date of purchase from *Action*tec Electronics or its authorized reseller. *Action*tec Electronics warrants the media containing software against failure during the warranty period. The only updates that will be provided are at the sole discretion of *Action*tec Electronics and will only be available for download at the *Action*tec website, www.*action*tec.com. *Action*tec Electronics' sole obligation under this express warranty shall be, at *Action*tec Electronics' option and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable *Action*tec Electronics published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. *Action*tec Electronics makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or applications software products
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OBTAINING WARRANTY SERVICE: Customer may contact *Action*tec Electronics Technical Support Center within the applicable warranty period to obtain warranty service authorization. Dated proof of purchase from *Action*tec Electronics or its authorized reseller may be required. Products returned to *Action*tec Electronics must be pre-authorized by *Action*tec Electronics with a Return Merchandise Authorization (RMA) number marked on the outside of the package, and sent prepaid and packaged appropriately for safe shipment, and it is recommended that they be insured or sent by a method that provides for tracking of the package. The repaired or replaced item will be shipped to Customer, at *Action*tec Electronics' expense, not later than thirty (30) days after *Action*tec Electronics receives the defective product.

Return the product to:

In the United States
*Action*tec Electronics, Inc
760 North Mary Avenue
Sunnyvale, CA 94085

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DISPUTE RESOLUTION: The customer may contact the Director of Technical Support in the event the Customer is not satisfied with *Action*tec Electronics response to the complaint. In the event that the Customer is still not satisfied with the response of the Director of Technical Support, the Customer is instructed to contact the Director of Marketing. In the event that the Customer is still not satisfied with the response of the Director of Marketing, the Customer is instructed to contact the Chief Financial Officer and/or President.
GOVERNING LAW: This Limited Warranty shall be governed by the laws of the State of California, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.